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INTEGRATION OF DOMESTIC AND INTERNATIONAL FINANCIAL MARKETS:
THE JAPANESE EXPERIENCE
PART II OF A STUDY BY SENA EKEN OF THE INTERNATIONAL MONETARY FUND*

Impact of Integration of Financial Markets

The structure and operation of the Japanese financial system has changed significantly since the early 1970s. New markets and a wide array of instruments have been created, and transactions in existing markets have been decontrolled substantially. Services provided by banks and securities houses at home and abroad have expanded. Controls on financial transactions abroad by Japanese residents, as well as those in Japanese financial markets by foreigners, have been liberalized or, in many cases, abolished. An assessment of these developments requires an analysis of the impact of the integration of financial markets on the internationalization of the yen, on Japan's role as a major capital center, and on the exchange rate of the yen.

Internationalization of the Yen - The internationalization of a currency is measured by the extent of its use: as a transaction currency or unit of account in international trade; as an investment currency by nonresidents; and as a reserve currency by foreign monetary authorities. Although the role of the yen has increased on all accounts in the past few years, its growth has not been wholly commensurate with the development of Japan as a global economic power.

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The Japanese yen plays a comparatively minor role as a transaction currency. Its use is generally limited to Japanese foreign trade, and it does not serve as a transaction currency in trade between third countries. In the early 1970s, about 2 percent of Japanese exports were denominated in yen. A decade later, this ratio had increased to about 35 percent,³² but remained considerably smaller than the corresponding figures for the United States (90 percent) and major European countries (60-85 percent). The role of the yen in Japanese imports has remained negligible at about 3 percent, compared with the use of domestic currencies of about 70 percent for the United States and a range of 30-45 percent for the major European countries.

The limited use of the yen in trade transactions is associated with various factors. In the past, quantitative controls on bank lending may have encouraged trade financing abroad in foreign currencies. The lack in earlier years of forward yen markets, where Japanese goods were exported, made it difficult to hedge the exchange risk if the exports were denominated in yen.³³ In fact, among major export markets, yen invoicing is most used for exports to European countries, where the yen forward market is well developed. While the ratio of yen-based contracts for sales to the United States is below 20 percent, that for shipments to Europe is 60 percent.³⁴ A large proportion of Japanese imports is accounted for by energy, agricultural products, and raw materials, prices for most of which are determined or fixed in U.S. dollars and settled in the currency in which the price is set. In addition, the domestic market prices of these goods are fairly sensitive to exchange rate changes, so that a part of the importer's risk is automatically hedged. Without a local bankers' acceptance market, Japanese traders continue to depend on the U.S. dollar acceptance market in New York.³⁵

To the extent that liberalization of capital controls and integration of domestic and foreign capital markets increase access to yen financing, enhance the growth of the Euro-yen market, promote diversification of domestic financial instruments, and deepen the market for yen-denominated assets, the role of the yen as a transaction currency is likely to continue to expand. The Japanese authorities' desire to enhance the role of the yen is evidenced by the recently initiated study on the establishment of a bankers' acceptance market. However, the denomination of trade cannot be determined unilaterally, and progress may therefore be gradual.

³²In the first quarter of 1983, the ratio of yen-based contracts to all of Japan's exports exceeded 40 percent for the first time.

³³See H. Taguchi, "A Survey of International Use of the Yen," Bank for International Settlements, Working Paper No. 6 (Basel, July 1982).

³⁴Japan Economic Journal, March 29, 1983.

³⁵See Eric Hayden, "Internationalizing Japan's Financial System," in Japan's Economy: Coping with Change in the International Environment, ed. by Daniel I. Okimoto (Boulder, Colorado: Westview Press, 1982); and Morgan Guaranty Trust Company of New York, "Japanese Exchange Control Liberalization and the Yen," World Finance Markets (New York, March 1981), pp. 5-11.

The liberalization of exchange controls and the increased availability of investment opportunities in yen assets have had a large impact on the role of the yen as an investment currency. Yen assets held by foreigners include yen deposits in Japan and the Euromarket and investments in yen-denominated securities and Japanese stocks. While complete data are not available on the amount of yen assets held by foreigners, the importance of the yen as an investment currency has been growing.

Yen deposits of nonresidents in Japan increased from \$0.5 billion at the end of 1970 to \$14.1 billion at the end of 1982 (Table 11). The pace of the increase was not steady in the 1970s, but since 1979 the expansion has been relatively stable, partly reflecting the lifting of interest rate controls on deposits of foreign public institutions. The growth of Euro-yen deposits has been even more rapid. Euro-yen deposits, which amounted to \$1.7 billion at the end of 1977, about half the level of foreign yen deposits in Japan, reached \$15.7 billion at the end of 1982,³⁶ or 1.1 times foreign yen deposits in Japan. If past trends in the growth of yen deposits in Japan and in the Euromarket continue, yen deposits held outside Japan could substantially exceed those held in Japan. These trends will depend on policies adopted for encouraging foreign yen deposit accounts in Japan by eliminating residual interest rate regulations.

Outstanding nonresident claims resulting from investments in yen-denominated securities have also increased sharply. Precise data on these are not available, but the increase in total Japanese securities held by nonresidents -- including those issued by Japanese entities in foreign markets in those markets' currencies -- from \$2.7 billion at the end of 1970 to \$42.6 billion at the end of 1980 and \$71.5 billion at the end of 1982, provides strong evidence, as an estimated 80 percent represents investments in yen-denominated securities.³⁷

Further evidence of the growing role of the yen as an investment currency can be found in the currency denomination of international bond issues (Table 12). The share of yen-denominated bonds averaged 6 percent in 1981-82, compared with about 61 percent for U.S. dollar-denominated bonds and 17 percent for Swiss franc-denominated bonds. While a movement toward denominating Eurobonds in Japanese yen has been observed in recent years, the share of Japanese yen in total Eurobond issues and placements remain relatively small, amounting to less than 2 percent.

The liberalization of capital flows and the trend toward domestic money market liberalization have also increased the role of the yen as a reserve currency. One indication of this increased use of the yen is the growth of yen

³⁶Compared to \$1,020 billion of total deposits in the narrowly defined Euromarket at the end of 1982, Euro-yen deposits were relatively small, but it is estimated that yen-denominated deposits in all institutions outside Japan, including, for example, those in Hong Kong and Singapore, amount to about \$50 billion (Japan Economic Journal, January 17, 1984).

³⁷See Michiya Matsukawa, "The Yen -- A Newly Emerging Reserve Currency," in Reserve Currencies in Transition (New York: Group of Thirty, 1982), pp. 24-31.

TABLE 11. YEN DEPOSITS OF NONRESIDENTS IN JAPAN AND IN THE
EUROMARKET, 1970-82
(In billions of U.S. dollars)

End of Year	In Japan ¹	In Euromarket ²		
		Monetary authorities	Banks	Non- banks
				Total
1970	0.54	...	...	...
1971	0.94	...	...	...
1972	0.90	...	...	...
1973	0.63	...	...	...
1974	0.86	...	...	...
1975	1.47	...	...	...
1976	1.78	...	...	...
1977	3.20	...	1.4	0.3
1978	7.23	...	4.6	0.8
1979	4.44	...	5.2	1.1
1980	10.13	...	8.4	2.2
1981	13.56	0.1	12.5	3.8
1982	14.08	0.1	11.9	3.8

Sources: Bank of Japan, *Economic Statistics Annual* (Tokyo, 1982); and Bank for International Settlements (BIS), *Monetary and Economic Department, International Banking Developments* (Basle), various issues.

¹ Short-term external liabilities of authorized foreign exchange banks denominated in yen.

² Yen-denominated liabilities of banks in the BIS reporting area. No data are reported prior to 1977.

TABLE 12. CURRENCY DENOMINATION OF INTERNATIONAL BOND ISSUES,
1976-82
(In percent)

	1976	1977	1978	1979	1980	1981	1982
Japanese yen							
Total international	0.8	3.9	12.7	7.8	5.6	6.6	5.4
Eurobonds	—	0.6	0.5	0.9	1.5	1.6	1.3
Deutsche mark							
Total international	12.0	18.6	21.9	20.1	22.1	5.3	7.5
Eurobonds	18.4	26.8	41.1	30.1	17.2	5.2	7.0
Pound Sterling							
Total international	—	0.6	0.9	0.7	3.0	3.0	2.7
Eurobonds	—	1.1	1.8	1.5	4.9	2.0	1.7
Swiss franc							
Total international	15.9	13.7	20.2	23.7	19.7	17.0	16.0
Eurobonds	...	...	...	...	...	...	...
U.S. dollar							
Total international	60.1	55.5	37.4	38.6	42.2	60.4	62.4
Eurobonds	65.1	63.3	48.1	56.8	66.4	80.2	83.3

Sources: International Bank for Reconstruction and Development, *Borrowing in International Capital Markets* (Washington), various issues; and Organization for Economic Cooperation and Development, *Financial Statistics Monthly* (Paris), various issues.

assets of foreign monetary authorities in Japan. In addition, there are yen reserves invested outside Japan. It is estimated that, at the end of 1982, the total amount of yen held as a reserve currency was about SDR 9.2 billion -- \$10.15 billion³⁸ -- compared with SDR 0.673 billion -- \$0.79 billion -- at the end of 1975.

Concurrently, the share of the yen in official holdings of foreign exchange also increased (Table 13). The share of the yen in the SDR value of foreign exchange reserves increased continuously, from 0.5 percent at the end of 1975 to 3.9 percent in 1982, despite fluctuations in the value of the yen. However, compared with shares of the U.S. dollar and the deutsche mark, which amounted to about 71 percent and 12 percent, respectively, in 1982, the yen's role remains relatively small. The importance of the yen as a reserve currency among developing countries has been greater than among industrial countries. This partly reflects the attempts made by members of the Organization of Petroleum Exporting Countries, which are classified as developing countries, to diversify their foreign exchange holdings.

The composition of foreign exchange reserves in individual countries depends on various factors, including historical ties, regional financial and trade agreements, the type of exchange arrangement, the currency composition of external payments (especially related to trade and debt), and, to some extent, profit and risk considerations. Even though the role of the yen remains small as a reserve currency in the portfolios of central banks, it is likely to make headway in the future if viewed in the context of the above factors. With the liberalization of restrictions on yen lending, the volume of yen debt will be increasing, and, with the liberalization of short-term Euro-yen lending and the growth of the Euro-yen market, the role of the yen in trade transactions is likely to expand. As the availability and variety of yen-denominated instruments with competitive yields increase, monetary authorities will be further encouraged to diversify into yen.

Japan's Role as a Major Capital Center - As described in previous sections, Japan's capital markets expanded rapidly during the past decade, developing into a major source of funds for public and private borrowers and providing investors with a wide range of assets. As a result, Japan's capital market has evolved into one of the world's largest. The growth of domestic markets, together with the liberalization of foreign exchange controls, has also enhanced the role of Japan's capital markets in international financing.

In terms of gross bond issues, Japan is the second largest (excluding the Euromarket) in the world, after the United States (Table 14). In 1982, the value of bond issues in Japan amounted to about \$177 billion, less than half the value of issues in the United States, but far greater than the amount recorded in any other market. Of the total bond issues in Japan, \$3.3 billion (1.9 percent) were issued by foreigners.

The currency composition of foreign bonds reflects, in part, the expectations of borrowers and lenders regarding movements in interest rates,

³⁸International Monetary Fund, Annual Report (Washington, 1983), p. 71.

TABLE 13. SHARE OF NATIONAL CURRENCIES IN SDR VALUE OF TOTAL IDENTIFIED OFFICIAL HOLDINGS
OF FOREIGN EXCHANGE, 1975-82

(In percent)

End of Year	Japanese Yen			U.S. Dollar	Deutsche Mark	Swiss Franc	Pound Sterling	French Franc
	Industrial countries	Developing countries	All countries					
1975	0.2	0.9	0.5	79.4	6.3	1.6	3.9	1.2
1976	0.4	1.1	0.8	79.7	7.0	1.4	2.0	0.9
1977	0.3	2.1	1.2	79.4	8.2	2.0	1.6	1.0
1978	1.6	4.0	2.5	76.9	9.9	1.4	1.5	0.9
1979	2.0	4.0	2.9	73.7	11.5	2.2	1.9	0.9
1980	2.8	4.3	3.5	68.7	13.8	3.1	2.9	1.2
1981	3.2	4.5	3.8	71.1	12.3	2.9	2.2	1.1
1982	3.9	4.0	3.9	71.4	11.6	2.7	2.2	1.1

Source: International Monetary Fund, *Annual Report of the Executive Board for the Financial Year Ended April 30, 19—*
(Washington), various issues.

inflation, and exchange rates. Prevailing expectations, as well as the liberalization of regulations regarding foreign bond issues, made Japan an important market for foreign bond issues. Japan accounted for about 13 percent of foreign bond issues and placements in 1982, the third largest market country, with Switzerland accounting for 45 percent and the United States for 24 percent.³⁹

What seems striking is the pace at which Japan has become a major market for foreign bond issues. As recently as 1976, foreign issues accounted for 0.3 percent of total issues in Japan. Since then, this ratio has increased steadily, amounting to almost 2 percent in 1982, about the same as in the United States. In the same period, Japan's share in total foreign bond issues increased from less than 2 percent to over 13 percent, while that of the United States showed a declining trend.

Japan's stock markets have also grown rapidly in the past decade. In terms of gross share issues, Japan is the second largest among industrial countries after the United States. Similarly, the Tokyo Stock Exchange is the second largest in the world, ranking after the New York Stock Exchange (Table 15). The market value of listed stocks on the Tokyo Stock Exchange totaled \$417.9 billion at the end of 1981, less than half that of the New York Stock Exchange, but more than twice that of the London Stock Exchange and seven times that of the Frankfurt Stock Exchange. The transaction value of stocks on the Tokyo market in 1981 was \$224.5 billion, about two thirds that transacted on the New York Exchange, but much greater than the values recorded in other markets.

The number of domestic companies listed on the Tokyo Stock Exchange in 1981 was 1,412, against 2,403 in London and 1,523 in New York. However, only 15 foreign companies were listed, compared with 478 in London and 177 in Frankfurt. The first equity issues by a foreign company in Tokyo were in 1973, and, by the end of 1976, 17 foreign companies had been listed. Since then, however, some companies have delisted their shares and others are reportedly considering delisting. The relatively small number of foreign companies listed on the Tokyo Exchange may result from various factors, such as the cost of keeping shares listed, the three-month deadline date for submission of financial reports,⁴⁰ and the lack of interest on the part of Japanese investors in locally listed foreign shares because of higher trading commissions for these shares and tax advantages on dividend payments for holders of Japanese shares.⁴¹

³⁹Japan's share in foreign bond issues increased to 14.3 percent in 1983.

⁴⁰Japanese firms are required to submit their financial reports within three months after closing their accounting year, whereas many European countries allow six months for submission of reports.

⁴¹Except for the withholding tax, dividends of less than Y100,000 a share a year on Japanese stocks are exempt from taxes, but such a system does not apply to foreign stocks.

TABLE 14. SECURITIES ISSUES IN MAJOR CAPITAL MARKETS, 1976-82

	1976	1977	1980	1981	1982
Gross bond issues					
<i>(In millions of U.S. dollars)</i>					
Japan					
Total	84,930	105,613	161,330	181,337	176,997
Of which: Foreign	287	1,394	1,343	2,723	3,301
Germany, Fed. Rep. of					
Total	29,819	35,694	78,645	82,603	88,085
Of which: Foreign	1,309	1,511	4,952	1,190	2,109
Switzerland					
Total	9,513	7,818	13,194	12,414	16,979
Of which: Foreign	5,444	4,959	7,470	8,118	11,325
United Kingdom					
Total	17,307	24,582	37,579	28,705	21,948
Of which: Foreign	—	—	178	913	1,129
United States					
Total	194,500	201,400	272,400	291,600	378,300
Of which: Foreign	10,632	7,668	2,736	7,576	6,025
Gross share issues					
Japan					
Germany, Fed. Rep. of	3,706	5,046	6,757	10,846	8,645
United Kingdom	2,415	1,881	3,822	2,441	2,440
United States	1,907	1,377	2,222	3,831	1,899
United States	11,100	11,400	22,600	26,900	28,900
Foreign bond issues and placements by market					
		<i>(In percent of world total)</i>			
Japan	1.5	8.4	8.6	12.8	13.1
Germany, Fed. Rep. of	6.9	9.1	27.6	5.6	8.4
Switzerland	28.7	29.9	41.6	38.2	45.0
United Kingdom	—	—	1.0	4.3	4.5
United States	56.1	46.2	15.2	35.6	24.0

Sources: Organization for Economic Cooperation and Development, *Financial Statistics Monthly* (Paris), various issues; and International Bank for Reconstruction and Development, *Borrowing in International Capital Markets* (Washington), various issues.

TABLE 15. STOCK EXCHANGES, 1981

	Tokyo	Frankfurt	London	New York
Number of listed companies				
Domestic	1,412	198	2,403	1,523
Foreign	15	177	478	42
Market value of stocks at end of year				
	417,945	55,792	189,560	1,098,561
<i>(In millions of U.S. dollars)</i>				
Transaction volume of stocks during year				
	224,516	7,047	30,896	389,219

Source: Nomura Securities, *Manual of Securities Statistics* (Tokyo, 1983).

Yen Exchange Rate - To moderate the fluctuations of the yen exchange rate following the adoption of the flexible exchange rate system, the Japanese Government has sometimes resorted to capital controls along with other policy measures. It is difficult to identify exactly when the modification of the system led to the tightening or relaxation of controls, because of the complexity of the measures taken and the different time periods in which they were implemented. In a broad sense, the modification of the system was such that, from mid-1978 to early 1979, measures were implemented to discourage net inflows of capital, and, from early 1979 to late 1980, measures were implemented to discourage net outflows of capital. Since the end of 1980, with the new Foreign Exchange and Trade Control Law, the principle of free capital transactions has been in effect, although implementing regulations contain administrative guidelines and reporting requirements.

A statistical analysis was performed to examine whether these capital control measures had an impact on the yen exchange rate. The explanatory equation used is based on the view that, in the long run, exchange rates tend to move in order to maintain purchasing power parity between currencies. However, in the short run, conditions in asset markets tend to dominate exchange rate movements, since capital flows can respond faster than the flow of goods to perceived changes in conditions. The primary influences in asset markets come from changes in interest rate differentials and in expected movements of the exchange rate. While exchange rate expectations are not observable, current account developments, which indicate the need for exchange rate adjustments to alter competitiveness, tend to affect exchange rate expectations.

The estimated exchange rate equation relates the real U.S. dollar/yen exchange rate (E) to the real short-term interest differential between the United States and Japan ($RUS-RJ$), lagged unexpected developments in the Japanese and U.S. current account balances (DCA), and the last period's value of the real exchange rate (E^{t-1}). To measure the impact of capital controls on the exchange rate, a dummy variable (D) representing controls was introduced into the equation. The dummy variable was specified as minus one when the controls were in the direction of discouraging capital inflows and encouraging capital outflows, as one when the controls were in the direction of discouraging outflows and encouraging capital inflows, and zero when there were no controls. The equations were estimated using data from the last quarter of 1978 through the first quarter of 1983.⁴²

⁴²The variables are defined as follows: the real exchange rate is an index of the nominal exchange rate (U.S. dollar/yen) multiplied by the ratio of the consumer price index in Japan to that in the United States. The real interest rate at time t is calculated as the nominal interest rate at time t less the percentage change in a six-month centered moving average of the consumer price index between t and $t-6$ expressed at an annual rate. The nominal interest rate used for Japan is the three-month Gensaki rate and that for the United States is the three-month treasury bill rate. The variable DCA represents cumulated unexpected changes in the difference between the Japanese and U.S. current account balances. The expected difference between these balances is estimated by regressing the actual difference on its lagged values and on lagged values of the real exchange rate. The variable DCA is the

$$\ln(E) = 0.8870 - 0.0163 (RUS-RJ) + 0.0121 DCA(t-1) + 0.7874 (RUS-RJ)_{t-1}$$

(1.88) (-3.30) (2.13) (8.03)

$$+0.7874 \ln(E)(t-1)$$

(8.03)

$$\bar{R}^2 = 0.879 \quad H = 1.628 \quad SEE = 0.051$$

$$\ln(E) = 0.0404 - 0.0117 (RUS-RJ) + 0.0235 DCA(t-1) + 0.9433 (RUS-RJ)_{t-1}$$

(0.07) (-2.40) (3.20) (8.30)

$$+0.9433 \ln(E)(t-1) + 0.612 D$$

(8.30) (2.15)

$$\bar{R}^2 = 0.910 \quad H = 1.155 \quad SEE = 0.045$$

As can be seen, when the dummy variable was introduced to represent controls, the sign of the dummy variable was consistent with prior expectations. Controls aimed at discouraging inflows and encouraging outflows contributed to a weaker yen. Conversely, controls aimed at encouraging inflows and discouraging outflows contributed to a stronger yen.⁴³ The introduction of the dummy variable is also seen to improve, although marginally, the overall goodness of fit of the equation. Therefore, the nature of the capital controls introduced and modified by the Japanese Government was consistent with its exchange rate objectives.

As the Japanese and international capital markets became better integrated with the lifting of capital controls, the impact of this development on the volatility of the yen exchange rate became a matter of debate. Basically, there are two opposing hypotheses. The first is that large swings in the exchange rate are the result of momentum or bandwagon effects and that the liberalization of exchange controls -- by making it easier to shift in and out of yen and by increasing the sensitivity of capital flows to changes in interest rate differentials and exchange rate expectations -- will likely exacerbate this tendency. Thus, it is held that liberalization of exchange

cumulated divergence of the actual from the expected difference between the Japanese and U.S. current account balances; that is, $DCA = E(DCAS)$, where $DCAS = DCA^e - DCAB$ (DCA^e = expected divergence between the Japanese and U.S. current account balances and $DCAB$ = actual divergence between the Japanese and U.S. current account balances). The variable is lagged because it is assumed that market participants receive the data with a one-period lag. The coefficient on the lagged real interest differential was constrained to be equivalent to that on the lagged real exchange rate in an effort to avoid multicollinearity. The numbers in parentheses are t-statistics.

⁴³These results are consistent with those obtained by Ichiro Otani ["Exchange Rate Instability and Capital Controls: The Japanese Experience, 1978-81," in *Exchange Rate and Trade Instability: Causes, Consequences, and Remedies*, ed. by David Bigman and Teizo Taya (Cambridge, Massachusetts: Ballinger Publishing Co., 1983), pp. 311-337], where he analyzed the impact of capital controls on exchange rates through their impact on transaction costs, the domestic interest rate, and the forward premium.

controls creates the potential for more volatility. The second hypothesis is that, although the imposition of controls on net inflows at times of strong current account positions and a strong yen, and on net outflows at times of current account deficits and a weak yen, was successful in limiting certain capital flows, these controls contributed to thin markets. The liberalization of exchange controls would lead to a deepening of the market for yen assets, and sharp exchange rate fluctuations resulting from a thin market would thus be avoided. There is some logic in both of these hypotheses, and it is not possible to predict a priori whether or not the liberalization of capital controls would lead to greater exchange rate variability.

Inasmuch as capital flows into and out of Japan are free of formal restrictions and administrative guidelines biased toward either capital inflows or outflows, and financial markets in Japan function efficiently, there can be increased confidence that over the longer term the exchange rate would move to reflect economic fundamentals such as changes in purchasing power parity and current account developments.

Summary and Conclusions

The Japanese financial system has undergone far-reaching changes in the past decade. The highly regulated system of the 1960s, dependent on bank lending with controls on interest rates and the quantity and distribution of credit and highly specialized financial institutions, has evolved into one in which market forces of both domestic and foreign origin play a major role.

Large-scale issues of government bonds after 1975 resulted in a rapid growth of Japan's primary and secondary financial markets and necessitated changes in issuing practices. To facilitate new issues, the government began issuing medium-term bonds through the open bidding system, the time period that the banks were required to hold new issues was reduced, and the new bonds were increasingly issued at rates reflecting those in the secondary market.

Extensive reforms also took place in short-term financial markets. These markets expanded substantially with the creation of the bill discount and certificate of deposit markets. Official controls on both the bill discount and call markets were removed, although the Bank of Japan continues to intervene in both markets. Restrictions on banks' participation in the Gensaki market were removed, facilitating the integration of interbank markets with unregulated markets, and thus enabling greater interest rate arbitrage across markets. These reforms in the money markets and the development of the government bond market altered the transmission mechanism of monetary policy.

The development of financial markets, while official regulations on deposit rates have remained in effect, has reduced the relative importance of commercial banks in financial intermediation. To enable banks to adjust to the changing financial environment, the Government authorized them to issue certificates of deposit, subject to certain restrictions. Also, in an effort to compete for funds, commercial banks have introduced various instruments with higher yields than those on regular bank deposits.

Largely to facilitate the issuance of government bonds, compartmentalization of the roles of financial institutions has been introduced. The Banking Law of 1982 authorized banks to purchase, sell, and

underwrite government securities. Initially, the banks sold new issues of long-term government bonds and, subsequently, new issues of medium-term and discount bonds. Effective April 1, 1984, both banks and securities firms were allowed to deal in certificates of deposit and commercial paper issued abroad and denominated in foreign currencies, and, since June 1984, banks have also dealt in domestic bonds in the secondary market. Securities companies, on the other hand, may now sell investment trusts, which are highly liquid and similar to bank deposits, and may engage in lending with government bonds as collateral. The sale of new issues of government bonds by banks has led to increased purchases of newly issued bonds by individuals and is serving as a stabilizing factor in the government bond market.

These developments in domestic financial markets, by providing investors with a wider array of assets with market-determined interest rates, together with the liberalization of capital flows in and out of Japan, have increased the integration of the Japanese financial system with that of the rest of the world. Particularly important in the integration of Japanese money markets with those abroad was the removal of barriers to foreign participation in the Gensaki and certificate of deposit markets. Permission for new equity issues by foreign companies in the Japanese stock market, as well as the issuance of foreign yen bonds in Japan, has increased foreign access to Japanese capital markets, although at times access has been temporarily limited because of developments in the balance of payments and exchange rate. Although initially the foreign yen bond market was dominated by international organizations and sovereign borrowers, the relaxation of eligibility criteria and changes in issuing procedures broadened the range of potential participants. Moreover, the scope for foreign equity investment in Japan was widened with the lifting of the limitation on foreign ownership except for designated companies.

Japanese access to markets abroad also increased substantially, as Japanese corporations were given greater freedom to borrow in capital markets abroad and institutions were allowed to invest their surplus funds abroad. These changes significantly affected corporate finance and led to substantial portfolio diversification by institutional investors.

Official controls on lending abroad by Japanese banks were recently eliminated, though such lending remains subject to prudential guidelines, as it is in other countries, and the access of foreign banks to Japan's financial markets was enhanced. Particularly important to the foreign banks were their increased sources of yen funding following the authority given to them to issue certificates of deposit and their access to the Bank of Japan's discount window. Although bond issues by banks in Japan are not allowed, subsidiaries of Japanese banks are allowed to issue bonds abroad and remit funds to Japan for lending operations of parent banks. Furthermore, short-term Euro-yen lending by Japanese banks was completely liberalized. In the foreign exchange market, the requirement of underlying trade or securities transactions for forward exchange transactions by residents was eliminated, Japanese residents were given unlimited freedom to exchange yen into foreign currencies for deposit with Japanese banks, and the limits on the foreign-currency swaps that both Japanese and foreign banks could undertake were increased.

As a result of the fundamental strength of the Japanese economy and the removal of formal restrictions on international movements of funds, capital flows into and out of Japan have increased dramatically. Outflows of Japanese capital, which averaged \$5.1 billion a year during 1973-77, increased to an average of \$18.4 billion a year during 1978-82, and reached \$32.5 billion in 1983. During the corresponding periods, net inflows of long-term foreign capital averaged \$1.5 billion, \$8.9 billion, and \$14.8 billion, respectively. These changes have made Japan's capital market the world's second largest, excluding the Euromarket. Furthermore, the yen's role as an international currency has increased substantially during the past decade.

The liberalization of capital flows has also increased the role of market forces of international origin in the Japanese financial system. In the past, there was heavy reliance on capital controls and exchange market intervention as instruments of exchange rate management. Without capital controls and with the growing size of the exchange market, greater interest rate flexibility in the management of the exchange rate became necessary. The integration of domestic and international financial markets has thus added momentum to the movement toward interest rate liberalization and the associated diversification of financial instruments in the domestic market.

Market forces will continue to exert strong pressures for further progress in capital markets and interest rate liberalization. The most important pressure is likely to come from the completion of the maturity structure in the secondary market for government bonds, with the large-scale maturing of long-term government debt due to begin in 1985. The increase in government bonds with short remaining maturities could cause substantial disintermediation if deposit rates remain subject to controls. Also, refinancing needs are likely to lead to a wider array of maturities for new government bonds, and could necessitate changes in marketing mechanisms to facilitate these issues. One of the institutional constraints on the liberalization of deposit rates has been the postal savings system, an important source of financing for the Government's Fiscal Investment and Loan Program. Thus, although the liberalization of deposit rates is inevitable, the process is likely to be gradual, starting with the liberalization of rates on large deposits held primarily by institutional investors.

Efforts are continuing to enhance Japan's role as a major capital center and to promote further internationalization of the yen by providing a wider array of yen assets and developing a full-fledged Euro-yen market. Consideration is also being given to the establishment of a bankers' acceptance market in yen. These measures are consistent with forces for further liberalization of domestic financial markets and are likely to enhance their efficiency, as well as their integration with markets abroad.

APPENDIX

Table 16: Summary of Bond Issues in Japan

	<u>Maturity (Years)</u>	<u>Method of Issue</u>	<u>Other Requirements</u>
Government bonds	10	Underwritten by a syndicate consisting of major financial institutions and securities houses; these institutions take the portions they have underwritten. ¹	Issued through a fixed-calendar issue system.
Long-term	5		
Discount	2-4		
Medium-term	10	Competitive auction system whereby investors purchase the securities directly.	The amount of bond issues by public corporations is determined every year by the Ministry of Finance.
Government-guaranteed bonds	10	Underwritten by a syndicate of banks and securities houses with a bank acting as a commissioned bank.	
Local government bonds	10	Public offerings are underwritten by a syndicate of banks and securities houses with a bank acting as a commissioned bank. Local government bonds are usually privately placed by the issuer to city banks, regional banks, and local financial institutions.	
Bank debentures with semiannual interest payment	3, 5	Issued directly by six banks. Certain amount sold directly by banks and the remainder through securities houses.	(1) Range in maturities from 1-5 years; (2) Ceilings on issue amounts are set by the Ministry of Finance based on a multiple of banks' capital and reserves.
Discount debentures	1		

Table 17: Summary Characteristics of Japanese Short-Term Money Markets

<u>Nature of the market</u>	<u>Interbank</u>	<u>Call Market</u>	<u>Bill Discount Market</u>	<u>Certificate of Deposit Market</u>	<u>Gensaki Market</u>
Participants	Financial institutions. Six specialized money dealers act as middlemen.	Financial institutions. Six specialized money dealers act as middlemen.	All financial institutions can issue certificates of deposit.	Open market. Consists of a conditional purchase of a government or corporate bond for a fixed period with a resale agreement at a specific date.	Market is open to any institution but not to individuals. Major borrowers are securities companies and financial institutions, and major lenders are private corporations.

Maturities of transactions

(1) Half-day, money payable within the day; (2) unconditional money repayable in the next business day; (3) fixed maturity, money repayable in 2-7 business days.

Call Market

Bill Discount Market

Bills are available in four maturities: 30-45 days, 46-75 days, 76-105 days, and 106-120 days.

Certificate of Deposit Market

Certificates of deposit are issued with maturities of 3-6 months.

Gensaki Market

Repurchase agreements with maturities of 1-364 days are available.

Amounts of transactions

Minimum transaction amount is ¥100 million.

Minimum transaction amount is ¥10 million.

Minimum denominations of ¥300 million.²

Minimum trading amount is ¥100 million.

Interest rates

Posted rates have been removed. The Bank of Japan has a major influence on the call money rates.

Posted rates have been removed. The Bank of Japan has a major influence on the call money rate.

Freely determined.

Freely determined. The differential between the purchase and resale prices reflects the cost of funds or the yield to the investor.

Taxation

Final holders of certificates of deposit are subject to 20 percent withholding tax at maturity. Foreign governments are exempt from the withholding tax. No transactions tax in secondary trading.

Investors in Gensaki market are subject to transactions tax. Interest from Gensaki investments are not subject to withholding tax as securities houses remain the registered holders of bonds during the repurchase agreement.

Other requirements

Unconditional fixed maturity loans require collateral, such as government bonds, government-guaranteed bonds, or bank debentures of 100-125 percent of the transaction amount.

(1) Only short-term bills issued by the Bank of Japan and accommodations bills³ are traded; (2) Investors are allowed to sell bills, except one-month bills, without restriction 30 days after they have been issued.

(1) Banks cannot buy back their own certificates of deposit before they mature; (2) Japanese banks can issue certificates of deposit up to 75 percent of their capital and reserves, and foreign banks in Japan up to 50 percent of their yen assets, subject to a limit of ¥6 billion.⁴

Securities companies can sell bonds from their own inventories (a dealing transaction) or they act as intermediaries between two outside parties (a brokerage transaction). There are no commissions on the former; securities companies earn a spread between the bid and offer yields on the latter (they earn about 0.5 percent or less, depending on the maturity).

Since early 1983, banks have been allowed to make over-the-counter sales of new issues during the specified issue periods. New issues that are not sold to the public by the end of the issue period are taken into banks' own portfolios and must then be held for a minimum of 100 days before being traded.

²The minimum denomination was reduced from ¥500 million to ¥300 million, effective January 1984.

³When Japanese companies borrow money, they issue promissory notes to the banks. Banks in turn issue accommodation bills, to which they attach the promissory notes as collateral. The value of the accommodation bill equals the sum value of the promissory notes.

⁴The ratio for Japanese banks will be increased 5 percentage points each quarter, starting in April 1984, and will reach 100 percent after April 1985. The ratio for foreign banks was increased from 30 percent to 50 percent in April 1984.

Sources for Table 16: Stephen Bronte, Japanese Finance: Markets and Institutions (London: Euromoney Publications, 1982); and data provided by the Japanese Ministry of Finance.

Sources for Table 17: Stephen Bronte, Japanese Finance: Markets and Institutions (London: Euromoney Publications, 1982); and Eric Hayden, "Internationalizing Japan's Financial System," in Japan's Economy: Coping with Change in the International Environment, ed. by Daniel L. Okimoto (Boulder, Colorado: Westview Press, 1982).

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